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FISH & NEAVE IP GROUP ROPES & GRAY LLP ONE INTERNATIONAL PLACE BOSTON, MA 02110-2624			EXAMINER GARCIA, ERNESTO	
			ART UNIT 3679	PAPER NUMBER

DATE MAILED: 07/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding:

Office Action Summary

Application No.

10/754,394

Applicant(s)

WALSH, MICHAEL FRANK

Examiner

Ernesto Garcia

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2006 and 30 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 May 2006 and 30 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Election of Species

Claim 3 is withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on December 13, 2004.

Drawings

The drawings were received on January 30, 2006 and May 2, 2006. These drawings are acceptable; however, the drawings contain a few discrepancies.

The drawings are objected to because the cross hatching for gas or fluid as shown in solid black line in Figure 8 is not a proper representation of either one. See MPEP 608.02(IX). Further, the designation of the directions of movement with reference characters "1"- "4" in Figure 3 is improper since reference characters "1"- "4"

have already been used in Figures 1A and 1B to designate the elements of the mechanism.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the string attached to the trigger (claim 9, lines 4-5) must be shown or the feature canceled from the claim. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended". If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The amendment filed May 2, 2006 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: New Figure 14 is another species of the mechanism note that the housing is different to that shown in Figure 1. Accordingly, there is no support in the specification that indicates the housing, i.e., the main structure, being connected to the box via pivot joints. There is only support of using a hook 11 as shown in Figure 1A.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

Claim 4 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 4, the specification never established that the ball bearings have a coefficient of static friction less than 0.15. Page 8 makes a general comment about dry surfaces and indicates that rollers may be significantly lower than 0.15. Applicant never mentioned that the coefficient of the ball bearings can be lower than 0.15. Applicant argues that the specification teaches that a coefficient of static friction less than 0.15 will result in a lower force necessary to activate the mechanism and that the example specifically states that rollers may be significantly lower is by no means limiting. In response, the argument is not persuasive since applicant has not shown where in the specification does it mention that the ball bearings also have a coefficient of friction lower than 0.15. Further, arguing that the rollers have a coefficient of friction lower than 0.15, as stated by the specification, does not support or provide that the ball bearings also have the same coefficient of friction. Note that ball bearing and rollers are not the same components. Further, according to general statement about static friction on page 8, lines 9-10, one can assume that the ball bearings can have a coefficient of friction between 0.15-0.60 instead. Therefore, neither statement specifically states that the ball bearings have a coefficient of friction lower than 0.15.

Claim 1, 2, and 4-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, it is unclear how an internal spring activation element, i.e., an element, becomes more than one element, i.e., the moveable internal spring pin, the internal spring, and the release pin as recited in lines 2-4. Note that the internal spring pin, the internal spring, and the release pin are in fact three elements. Further, it is unclear how an internal release activation element, i.e., an element, becomes more than one element, i.e., "the release pin and the one or more ball bearings or slugs". Note that the release pin and the slugs are two or more elements. Further, it is unclear how the release pin 7 interacts with the geometry of the trap 9 as recited in lines 9-10. According to Figure 1, only the trap spring 5, the ball bearings 6, and the clips 13 interact with the trap instead.

Regarding claim 6, it is unclear how the hanger 12 is able to push the internal spring pin 2 down by itself as described in line 4. What feature of the hanger makes this pushing? Further, it is unclear how the release pin 7 actually interacts with the geometry of the trap as described in line 10-11. According to the drawings, only the ball bearings 6 interact with the geometry of the trap 9 and the ball bearings interact with the geometry of the ball bearings instead.

Regarding claims 7, 9 and 11, it is unclear how an internal spring activation element, i.e., an element, becomes more than one element, i.e., the moveable internal spring pin, the internal spring, and the release pin as recited in lines 2-3. Note that the internal spring pin, the internal spring, and the release pin are in fact three elements.

Further, it is unclear how an internal release activation element, i.e., an element, becomes more than one element, i.e., “the release pin, a lift spring, and the one or more ball bearings or slugs” as recited in lines 9-10. Note that the release pin, the lift spring, the ball bearing, or the slugs are three or more elements. Further, it is unclear how the release pin 7 interacts with the geometry of the trap 9. According to Figure 1, only the trap spring 5, the ball bearings 6, and the clips 13 interact with the trap.

Regarding claims 1, 6, 7, 9, and 11, the use of the term “one or more ball bearings or slugs” in claims 1, 7, 9, and 11, line 6, and claim 6, line 7, makes unclear how the release pin can be between just one ball bearing or one slug when the first condition or the or-statement is recited in the alternative. Note that the use of the term “between” must be made relative to at least two points of reference, i.e., at least two ball bearings or slugs, to consider the release pin to be in between.

Regarding claims 2, 4, 5, and 8, the claims depend from claim 1 and therefore are indefinite.

Double Patenting

Applicant is advised that should claim 5 be found allowable, claim 6 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both

cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). Note that the same elements are being recited and the recitation of an internal spring activation element or an internal release activation element in claim 1 does not change the scope of the invention since claim 6 would inherently have the same components that comprise the internal spring activation element and the internal release activation element.

Claim Rejections - 35 USC § 102

Claims 1, 2, 5-8, 10, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by De Pew, 3,065,011 (see marked-up attachment).

Regarding claim 1, De Pew discloses, in Figure 1, a low-force release mechanism comprising a main structure **12**, a trap **11**, an internal spring pin **41**, an internal spring **46**, a release pin **20**, a least one trigger **38**, at least one (one or more) ball bearing **21**, and attachments **A15** by which a container **A8** is attached to the main structure **12** and the trap **11**. The release pin **20** is configured to be moveable between the ball bearing **21** in an internal geometry of the trap **11**. A load force is distributed away from the trigger **38**. The release pin **20** and the ball bearing **21** interact with a geometry of the trap **11**. Further, the position of the trap **11** is locked and held.

Applicant is reminded that the functional "whereby" statement does not define any structure and accordingly cannot serve to distinguish. In re Mason, 114 USPQ 127, 44 CCPA 937 (1957). Further, the limitation "when the release pin is pushed between one or more ball bearings or slugs in an internal geometry of the trap, the position of said trap is locked and held" in lines 6-7 is given limited patentable weight as the release pin is not positively between one or more ball bearings and the internal geometry of the trap thus not required.

Regarding claim 2, the release pin **20** and the at least one of the ball bearings **21** lock and hold the position of the trap **11**.

Regarding claim 5, the mechanism further comprises a hanger **13**.

Regarding claim 6, De Pew discloses, in Figure 1, a low-force release mechanism comprising a main structure **12**, a trap **11**, an internal spring pin **41**, an internal spring **46**, a release pin **20**, a least one trigger **38**, at least one (one or more) ball bearing **21**, a hanger **13**, and attachments **A15** by which a container **A8** is attached to the main structure **12** and the trap **11**. The release pin **20** is configured to be moveable between the ball bearing **21** in an internal geometry of the trap **11**. A load force is distributed away from the trigger **38**. The release pin **20** and the ball bearing **21** interact with a geometry of the trap **11**. Further, the position of the trap **11** is locked and held.

Applicant is reminded that the functional "whereby" statement does not define any structure and accordingly cannot serve to distinguish. In re Mason, 114 USPQ 127, 44 CCPA 937 (1957). Further, the limitation "when the release pin is pushed between one or more ball bearings or slugs in an internal geometry of the trap, the position of said trap is locked and held" in lines 6-7 is given limited patentable weight as the release pin is not positively between one or more ball bearings and the internal geometry of the trap thus not required.

Regarding claim 7, De Pew discloses, in Figure 1, a low-force release mechanism comprising a main structure **12**, a trap **11**, an internal spring pin **41**, an internal spring **46**, a release pin **20**, a least one trigger **38**, at least one (one or more) ball bearing **21**, and attachments **A15** by which a container **A8** is attached to the main structure **12** and the trap **11**, and a lift spring **30**. A load force is distributed away from the trigger **38**. The release pin **20**, the lift spring **30**, and the at least one of the ball bearings **21** interact with a geometry of the trap **11**. The release pin is configured to be moveable between the ball bearings in an internal geometry of the trap **11**, such that the position of the trap is locked and held.

Applicant is reminded that the limitation "when the release pin is pushed between one or more ball bearings or slugs in an internal geometry of the trap, the position of said trap is locked and held" in lines 6-7 is given limited patentable weight as the

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release pin is not positively between one or more ball bearings and the internal geometry of the trap thus not required. Further, the application of the low force on the trigger **38** can cause the internal spring pin, the internal spring, and the release pin to move a position of the container.

Regarding claim 11, De Pew discloses, in Figure 1, a low-force release mechanism comprising a main structure **12**, a trap **11**, an internal spring pin **41**, an internal spring **46**, a release pin **20**, a least one trigger **38**, at least one (one or more) ball bearings **21**, and attachments **A15** by which a container **A8** is attached to the main structure **12** and the trap **11**, and a trap spring **39**. A load force is distributed away from the trigger **38**. The release pin **20**, and the trap spring **39**, and the at least one of the ball bearings **21** interact with a geometry of the trap **11**. The release pin is configured to be moveable between the ball bearings such that the position of the trap is locked and held.

Applicant is reminded that the limitation "when the release pin is pushed between one or more ball bearings or slugs in an internal geometry of the trap, the position of said trap is locked and held" in lines 6-7 is given limited patentable weight as the release pin is not positively between one or more ball bearings and the internal geometry of the trap thus not required. Further, the application of the low force on the trigger **38** can cause the internal spring pin, the internal spring, and the release pin to move a position of the container.

Regarding claim 10, the load force is distributed to the main structure **12** and the trap **11**.

Claim Rejections - 35 USC § 103

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over De Pew, 3,065,011.

Regarding claim 4, the one or more ball bearings **21** are low frictional ball bearings; however, De Pew fails to mention that the ball bearings have a coefficient of static friction less than 0.15. Applicant is reminded that low friction ball bearings have been known to exist and one skilled in the art would have purchased ball bearings with a coefficient of static friction less than 0.15. Applicant is reminded that discovering an optimum value of a result effective variable involves only routine skill in the art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use ball bearings having a static friction less than 0.15 to minimize a required force to move the ball bearings. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over De Pew, 3,065,011, in view of Linder.

Regarding claim 8, De Pew, as discussed, fails to disclose the container is selected from a group consisting a bag, a box, a collapsible box, and a net. De Pew, however, suggests the term "cargo" in the title which implies boxes or anything that is able to contain a cargo. It is well known to put a cargo in a box such as weapons or food aid placed in a box as also taught by Linder. Therefore, as taught by Linder, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the container to be a box to deliver weapons or food aid to those in need.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over De Pew, 3,065,011, in view of Huff, 1,027,481.

Regarding claim 9, De Pew discloses, in Figure 1, a low-force release mechanism comprising a main structure **12**, a trap **11**, an internal spring pin **41**, an internal spring **46**, a release pin **20**, a least one trigger **38**, at least one (one or more) ball bearings **21**, and attachments **A15** by which a container **A8** is attached to the main structure **12** and the trap **11**, and a lift spring **30**. A load force is distributed away from the trigger **38**. The release pin **20** and the at least one of the ball bearings **21** interact with a geometry of the trap **11**. However, De Pew fails to disclose a string attached to the trigger **38**. Instead, De Pew teaches a wire attached to the trigger **38**. Huffe, however, teaches, in Figure 2, a string attached to a trigger D8 to release a low force mechanism. Therefore, as taught by Huff, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to replace the wire with a string to move the trigger thus releasing the low-force mechanism.

Applicant is reminded that the functional "whereby" statement does not define any structure and accordingly cannot serve to distinguish. In re Mason, 114 USPQ 127, 44 CCPA 937 (1957). Further, the limitation "when the release pin is pushed between one or more ball bearings or slugs in an internal geometry of the trap, the position of said trap is locked and held" in lines 6-7 is given limited patentable weight as the release pin is not positively between one or more ball bearings and the internal geometry of the trap thus not required. Also, the application of the low force on the trigger 38 can cause the internal spring pin, the internal spring, and the release pin to move a position of the container.

Response to Arguments

Applicant's arguments filed January 30, 2006 have been fully considered but they are not persuasive.

Applicant argues that De Pew fails to disclose "the release pin is configured to be moveable between one or more ball bearings or slugs in an internal geometry of the trap, such that the position of said trap is locked and held". In response, applicant should note that the release pin 20 is between the ball bearings as mentioned in the

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rejection. Further, given that the release pin 20 is between the ball bearings, inherently the position of the trap is locked and held. Applicant further argues that unlike the ball bearings recited in the pending claims, the ball bearings and the release pin of De Pew do not interact in an internal geometry of the trap to lock and hold a position of the trap.

In response, this argument is moot in view of the 112's rejection now presented.

Further, it is clear from the De Pew that the ball bearings interact with an internal geometry of the trap. Note that each of the openings where the ball bearings seat is considered an internal geometry of the trap.

Applicant further argues that the two rivets the examiner characterizes as the internal spring pin 41 are fixed and consequently are unable to move a position of the container in conjunction with the internal spring and the release pin. In response, applicant should note that this statement is in a "whereby statement" and does not need to be met since the ball bearings are not retracted as compared to what is claimed. Furthermore, this statement does not set forth that the internal spring pin moves, but rather causes the internal spring pin to move a position of the container, which broadly considered, the internal spring pin does. Note that if the internal spring pin is not present in the reference, it would not cause the function of the mechanism and thus will not move a position of the container. But since the internal spring pin is present and required, as well as the rest of the components of the mechanism in the reference, its cause is to move a position of the container.

With respect to claim 5, applicant argues that the flange 13 the examiner characterizes is not a hanger. In response, this argument is not persuasive since the term "hanger" has been considered with the broadest reasonable interpretation. Note that a hanger could be anything. There's nothing structurally different recited in the claim from that of the reference. Is applicant arguing that the hanger of the reference is not similar to a clothes hanger? What structure is required that defines the hanger?

With respect to claims 4 and 8, this claim is moot in view of new grounds of rejection.

Applicant further argues that there is no load distribution. In reply, applicant should note that the springs in De Pew provide a load distribution.

With respect to claim 9, applicant argues that Huff does not disclose a string but rather a cable. The argument is not persuasive since a cable is a string or vice versa.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. In particular, the new limitations "an internal spring activation element ... comprises a moveable" recited in claims 1, 7, 9, and 11, line 2-3, "configured to be moveable" in claims 1, 7, 9, and 11, line 6, "an internal release activation element comprising" in claims 1, 7, 9, and 11, line 9, "able to push" in claim 6, line 4, and "the group consisting of ... net" in claim 8, lines 1-3, necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernesto Garcia whose telephone number is 571-272-

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70837083. The examiner can normally be reached from 9:30-6:00. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached at 571-272-7087.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

E.J.



E.G.

July 19, 2006

Attachment: one marked-up page of De Pew, 3,065,011

DANIEL P. STODOLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

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De Pew, 3,065,011

